

DOCUMENT RESUME

ED 097 373

95

TM 004 010

AUTHOR Molina, Huberto
TITLE The SWRL English Language and Concepts Program for Spanish-Speaking Children: 1971-1972 Tryout. Technical Report No. 46.
INSTITUTION Southwest Regional Laboratory for Educational Research and Development, Los Alamitos, Calif.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Mar 73
NOTE 18p.
EDRS PRICE MF-\$0.75 HC-\$1.50 PLUS POSTAGE
DESCRIPTORS Attendance; Elementary School Students; *English (Second Language); Formative Evaluation; *Program Evaluation; *Spanish Speaking; *Student Evaluation; Test Construction; *Test Results

ABSTRACT

The Southwest Regional Laboratory English Language and Concepts Program for Spanish Speaking Children (LCS) is designed to help Spanish speaking children produce and comprehend English language skills required in early elementary grades. The tryout exercised, under standard school conditions, the materials and procedures of the LCS instructional system and of the accompanying teacher training system. Pupil test results, teacher comments, and pupil attendance records were used to measure system effectiveness. The report includes a description of the tryout scope and the procedures used for teacher training, the measures of the assessment, and entry and end of program test pattern types and sampling data. An analysis of the program shows that all classes attained a high level of proficiency on the end-of-program test. The report concludes by tracking student progress through the program. (SE)

ED 097373



BEST COPY AVAILABLE

SWRL EDUCATIONAL RESEARCH AND DEVELOPMENT

TECHNICAL REPORT 46

MARCH 1973

THE SWRL ENGLISH LANGUAGE AND CONCEPTS PROGRAM FOR
SPANISH-SPEAKING CHILDREN: 1971-1972 TRYOUT

Huberto Molina

ABSTRACT

The tryout exercised the materials and procedures of the LCS instructional system and of the accompanying teacher training system. The scope of the tryout is described and pupil test results, teacher comments, and pupil attendance records are presented.

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

PERMISSION TO REPRODUCE THIS COPY
RIGHTED MATERIAL HAS BEEN GRANTED BY

HUBERTO MOLINA
TO ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE NATIONAL IN-
STITUTE OF EDUCATION. FURTHER REPRO-
DUCTION OUTSIDE THE ERIC SYSTEM RE-
QUIRES PERMISSION OF THE COPYRIGHT
OWNER.

BEST COPY AVAILABLE

Contents

	Page
TRYOUT SCOPE	1
TEACHER-TRAINING PROCEDURES	1
ASSESSMENT MEASURES	2
Selection of Items	2
Entry Test	2
Unit Assessments	4
End-of-Program Test	4
ANALYSIS OF ASSESSMENT DATA	5
Assessment Results	6
Student Participation in the Program	10
Tracking Student Progress	11

THE SWRL ENGLISH LANGUAGE AND CONCEPTS PROGRAM FOR
SPANISH-SPEAKING CHILDREN: 1971-1972 TRYOUT

Huberto Molina

The SWRL English Language and Concepts Program for Spanish-Speaking Children (LCS) is designed to help Spanish-speaking children produce and comprehend English language skills required in early elementary grades. During the 1971-72 school year, a tryout of the LCS program was conducted involving 8 school districts, 33 schools, 43 classes, and 883 Spanish-speaking children. It was initiated in October, 1971 and terminated in June, 1972.

LCS seeks first-order outcomes of specified English language proficiency in the following areas: syntax, phonology, and lexicon. The tryout exercised, under standard school conditions, the materials and procedures of the LCS instructional system and of the accompanying teacher training system. Pupil test results, teacher comments, and pupil attendance records were used to measure system effectiveness.

TRYOUT SCOPE

Seven of the participating districts are located in Southern California and one is located in central California. The tryout schools were selected to represent various demographic situations: schools in a large Spanish speaking community, schools in the inner city, schools in pocket areas surrounded by English speaking communities, and country schools serving migrant families.

Teachers assigned children to participate in the tryout on the bases of a SWRL-developed Entry Test, a phonological rating, and their own judgment of the pupils' English language proficiency. Test score and phonological rating cut-off points were not mandated. The teacher was instructed to select only those children who clearly lacked the English language proficiency required for success in the basal reading program, using the Entry Test and phonological rating to guide the decision.

TEACHER-TRAINING PROCEDURES

The LCS teacher-training system included two types of training sessions: one for teaching district personnel, such as supervisors,

to conduct training sessions for teachers; and, one for training teachers directly. Training materials and procedures were designed for maximum exportability. Filmstrips, tapes, and printed booklets were packaged to ensure high teacher-training reliability across sessions.

Each district trainer was equipped to conduct as many teacher-training sessions as required. Ordinarily, only one or two sessions were required with a subsequent follow-up session for makeups. Teacher trainers from the participating school districts met at SWRL in October, 1971 for a two hour training session. The purpose of the session was to prepare them to use the teacher-training program to prepare teachers to present the lessons and follow-up materials. Since this was a SWRL field tryout, procedures for record-keeping and data forms to be returned to the Laboratory were also discussed.

ASSESSMENT MEASURES

Selection of Items

The response items included in the Entry and End-of-Program Tests were pre-classified into three levels of syntactic difficulty. Imperatives involving psychomotor responses, e.g., Point to a hat, were classified as Level I items; oral concept discrimination responses, e.g., Is this a book or a pencil?, were classified as Level II. Concept description items involving production of phrases and sentences were classified according to syntactic and lexical difficulty and keyed to the lesson in which they received initial emphasis: Level I items, Lesson A-21. Level II items, Lessons 22-48; and Level III items, Lessons 49-75. In addition, items were classified on the basis of math/science and social studies content. Item classifications for the Entry and End-of-Program Tests by syntactic difficulty level and concept area are presented in Table 1.

Entry Test

The Entry Test consisted of 40 items: 24 items required psychomotor responses to imperatives in standard English, and 12 more involved oral concept discrimination responses. Four items were concept description items consisting of one syntactic pattern, questioning the verb phrase, i.e., What is (noun) doing?. Teachers also rated each child's English phonological control on a 1-4 scale, with 1 indicating poor phonological control and 4 indicating considerable control.

Where the Program was initiated after the start of the school year, the teachers started with the instructional unit judged by them to be most appropriate to the needs of their students.

Table 1

Pre- and Posttest Item Sampling by Syntactic
Difficulty Level and Concept Areas

Test	Concept Area	Syntactic Difficulty Level						Total	
		I		II		III			
		No. Items	Percent	No. Items	Percent	No. Items	Percent	No. Items	Percent
Entry	Math and Science	7	17.5	0	0	0	0	7	17.5
	Social	17	42.5	13	32.5	3	7.5	33	82.5
	Combined Total	24	60.0	13	32.5	3	7.5	40	100.0
End-of-Program	Math and Science	11	18.3	11	18.3	18	30.0	40	66.7
	Social	9	15.0	9	15.0	2	3.4	20	33.3
	Combined Total	20	33.3	20	33.3	20	33.4	60	100.0

Unit Assessments

Following each 15 lessons, a unit assessment consisting of 10 items was individually administered to each child. The more complex items within each instructional unit were sampled to assess student unit proficiency as economically as possible. Additional review and instruction were provided for children not demonstrating adequate end-of-unit proficiency.

End-of-Program Test

The End-of-Program Test was administered to all children in LCS irrespective of whether they had completed all 80 lessons. Thirty-eight of the 60 items in the test required concept description responses. The Entry Test required only four concept description responses to one pattern type, while the End-of-Program Test included eight pattern types. Pattern types and examples are listed below.

<u>Pattern</u>	<u>Examples</u>
1. Questioning the subject	What's in the rectangle? Which is the heaviest one? Who is last in line?
2. Questioning the object	What does he have? What's Jose wearing? Which ones does she have?
3. Questioning the verb phrase	What is he doing?
4. Questioning the number	How many children do you see?
5. Questioning the locative prepositional phrase	Where's the coffee?
6. Yes/no questions	Is this a book? Do you see a horse?
7. Questioning the predicate adjective	What color is the book?
8. Questioning the predicate nominal	What's this?

Table 1 compares the Entry and End-of-Program Tests in terms of item distribution across content areas and syntactic difficulty levels. The Entry Test principally sampled from syntactic Levels I and II and employed only one pattern-type: questioning the verb phrase. While

the Entry Test used only one syntactic pattern evoking concept description responses, the End-of-Program Test used seven patterns, in addition to the pattern used in the Entry Test. The Entry Test contained seven math/science items and the End-of-Program Test had forty math/science items. Math/science item-content is understandably more difficult since the vocabulary items are usually classroom related technical words, e.g., set, number, colors, geometric shapes, etc.

ANALYSIS OF ASSESSMENT DATA

Table 2 shows the number of pupils selected for tryout participation by grade level. Of the 883 Spanish speaking students tested, teachers selected 630 for participation in LCS. Almost half of those selected were in kindergarten; 73.3% were from combined K-1 levels. The remaining 27% were evenly distributed across the other grade levels. Entry Test results for 18 pupils were not retrievable, thus 612 pupils were tracked through the Program.

Table 2

Pupils Selected for LCS Tryout Participation

Grade	Total Students Selected		Students Tested But Not Selected	
	Number	Percent	Number	Percent
K	308	48.9	95	37.5
1	154	24.4	60	23.7
2	39	6.2	23	9.1
3	37	5.9	18	7.1
4	22	3.5	8	3.2
5	33	5.2	8	3.2
6	30	4.8	7	2.8
ungraded	7	1.1	34	13.4
Total	630	100.0	253	100.0

Tables 3 and 4 show the descriptive data on Entry Test performance and the phonological rating for students selected for participation in LCS as contrasted with the students not selected. Children who were not selected for instruction attained a mean score of 34.42 on the Entry Test, 14.28 points higher than the mean raw score of those selected for LCS participation. As shown in Table 3, at each grade level the Entry Test mean score differences between selected and not selected students ranges between 11 and 26 points.

Mean Phonological Ratings for each grade are shown in Table 4. When comparing students selected with those not selected, the results are similar to those obtained with the Entry Test. By and large, students who were selected by the teachers for participation in LCS were those who could most benefit from English language instruction before entering the basal reading program.

Assessment Results

Table 5 shows the descriptive data, by grade, for all LCS assessments. Mean Entry Test scores range from a low of 10.16 for the fifth graders to a high of 23.08 for the kindergarteners. A similar trend is reflected in phonological ratings: with the range from 1.20 for the sixth graders to 1.83 for the kindergarteners. Irrespective of the mean performance level on the Entry Test, all classes attained a high level of proficiency on the 60-item End-of-Program Test. The posttest mean score of 53.21 represents 89% of the total possible criterion referenced items.

Comments obtained from the teachers contributed possible explanations for the low Entry Test and high End-of-Program Test performance of the older children:

1. Some children in the upper elementary grades had entered this country recently (low average phonological scores on the Entry Test support this view). Once the children mastered the necessary English language skills, they were able to use knowledge acquired via their native language to make rapid progress in LCS.
2. LCS offers many success experiences to those children who have encountered great difficulty in the school curriculum. Older children who have experienced failure due to language difficulty reacted positively to the experiences offered by LCS.
3. Older children in the Program produced higher rates of response and were more confident than the younger children.

Table 3

Entry Test Descriptive Data

Grade	Students Selected			Students Not Selected			Mean difference (2) - (1)
	Number	Score Mean (1)	Standard Deviation	Number	Score Mean (2)	Standard Deviation	
K	305	23.08	13.30	95	34.41	8.60	11.33
1	147	19.81	14.88	60	34.72	9.55	14.91
2	39	17.74	16.49	23	37.08	7.72	19.34
3	37	20.51	18.53	18	34.43	10.31	13.92
4	22	13.73	16.20	8	25.98	13.14	12.25
5	32	10.16	15.32	8	36.04	4.00	25.88
6	30	13.20	15.07	7	29.37	9.71	16.17
unknown	7	-	-	34	35.08	5.13	-
Total	619	20.14	14.97	253	34.42	8.19	14.28

Table 4

Phonological Rating Descriptive Data

Grade	Students Selected			Students Not Selected			Mean Difference
	Number	Mean Rating	S.D.	Number	Mean Rating	S.D.	
K	291	1.83	1.00	95	2.42	1.05	.59
1	139	1.71	.92	60	3.00	1.10	1.29
2	36	1.64	.80	23	3.21	.72	1.57
3	34	1.68	.98	18	2.60	.94	.92
4	21	1.19	.40	8	1.63	1.19	.44
5	27	1.19	.40	8	2.29	1.60	1.10
6	30	1.20	.41	7	1.00	.00	-.20
unknown	-	-	-	34	2.25	.95	-
missing data	41	-	-	-	-	-	-
Total	619	1.69	.93	253	2.56	1.13	.87

Table 5

Descriptive Data for All LCS Assessments by Grade

Grade	Initial Assessment Measures				End-of-Program			Absence Rate			Unit 1				
	Entry Test			Phonological Rating		N	X	S.D.	N	X	S.D.	N	X	S.D.	
	N	X	S.D.	N	X										S.D.
K	305	23.08	13.30	291	1.83	1.00	200	51.30	7.40	269	6.27	14.13	212	8.00	2.56
1	147	19.82	14.88	139	1.71	.92	85	55.08	4.39	119	3.67	9.28	110	8.85	2.06
2	39	17.74	16.49	36	1.64	.80	26	55.46	5.63	35	3.71	10.57	33	8.45	2.49
3	37	20.51	18.53	34	1.68	.98	17	53.29	6.93	33	.61	2.47	26	8.31	2.02
4	22	13.73	16.20	21	1.19	.40	10	56.40	2.22	21	.67	2.31	17	8.53	1.94
5	32	10.16	15.32	27	1.19	.40	18	56.78	3.84	26	.15	.78	22	8.31	1.94
6	30	13.20	15.07	30	1.20	.41	14	58.07	2.87	30	2.33	7.20	24	7.88	2.23
Total	612	20.30	14.95	578	1.69	.93	370	53.21	6.65	531	4.43	11.61	444	8.29	2.36
	Unit 2			Unit 3			Unit 4			Unit 5			Unit 6		
K	241	9.07	1.78	198	9.92	1.72	204	9.40	1.23	150	8.24	1.79	101	8.50	1.92
1	107	9.21	1.60	101	9.17	1.45	94	9.63	.93	85	9.22	1.26	46	9.39	.93
2	29	9.14	1.64	30	9.07	1.41	28	9.68	1.19	25	9.12	1.48	17	9.59	.71
3	24	8.17	2.33	20	8.70	1.69	19	9.05	1.84	14	8.64	1.15	4	9.00	1.41
4	14	8.93	1.27	11	9.00	1.26	13	9.38	1.12	8	9.13	1.36	8	9.63	.52
5	19	8.95	1.27	18	8.33	1.65	20	8.65	1.42	17	8.30	1.72	14	8.93	1.33
6	21	9.00	1.76	15	8.47	1.51	17	9.12	1.41	11	9.55	.82	8	9.75	.71
Total	455	9.03	1.73	393	8.94	1.61	395	9.41	1.23	290	8.63	1.64	198	8.93	1.58

In addition to possible explanations mentioned by the teachers, older children were absent less than the younger children. Absenteeism during the Program, shown in Table 5, was greatest among kindergarteners, who averaged over six days absent with a standard deviation of 14.13 days. This is a higher mean absentee rate than that of the older children. However, Table 5 shows that irrespective of Entry Test performance and absentee rate, the mean scores on the six unit assessments were high, ranging from 8.29 (82.9%) on Unit 1 to 9.41 (94.1%) on Unit 4.

Student Participation in the Program

Table 6 shows Entry Test and phonological rating descriptive data for students by program completion category. Two things should be noted. First, the ostensible "attrition" rate reflects neither experimental mortality nor student failure. The only students not accounted for are the 31 (2.1%) with incomplete data. A large number of students, 137 (22.4%), were removed from the Program on the basis of rapid LCS progress and a judgment that they were ready to enter the schools' basal language program. Only 48 (7.8%) actually moved from the district, indicating greater demographic stability than is often alleged. Those who were absent at the time of the final test (43, or 7.0%) were reported by teachers as having actually completed LCS.

Table 6

LCS Entry and Phonological Test Descriptive Data

Category	Number	Entry Test Score		Phonological Rating	
		$\bar{X}$	S.D.	$\bar{X}$	S.D.
Completed Program	370	19.65	14.65	1.70	.89
Transferred Out of School	48	19.40	12.36	1.47	.78
Returned to Regular Instruction	137	21.64	16.84	1.76	1.06
Incomplete Data	13	25.23	11.42	2.00	1.00
Absent at Time of Final Test	43	21.12	14.10	1.80	1.10
Total for Whom Entry Test Scores were Received	612	20.23	14.99	1.69	.93

Second, the children who completed LCS, and on whom the effectiveness of the Program is based, possessed no greater (sometimes less) English language proficiency at the time of entry than those who moved from the district or those whose data were lost due to logistic vagaries. Of the 612 students, only 370 completed LCS. The table indicates that the 242 children who did not complete the Program were not significantly different from the participating students in terms of entering language proficiency, as measured by performance on the Entry Test and phonological rating.

Tracking Student Progress

The unit assessment data yield further information concerning the LCS progress of individual students. Seven "completion status" categories were established, and the status of each student was tracked throughout the six units. The unit "completion status" categories are:

1. Completed the Unit
2. Skipped the Unit
3. Absent at Time of Unit Test
4. Did Not Complete the Unit
5. Score Was Not Received for the Unit Assessment
6. Transferred Out of School
7. Returned to Regular Instruction

Table 7 shows the number of students by completion status category and their entry language proficiency scores across all instructional units and the End-of-Program Test. Category 1, "completed," indicates that the students actually took the end-of-unit assessment. Status categories 2-5 include youngsters who did not take the end-of-unit test for the reason shown, but remained in LCS. The entries in these categories across the units indicate entries peculiar to that unit and are not cumulative. Categories 6 and 7, however, are cumulative across units because once a student falls into either of these categories he is out of the Program and will not appear in any other category in future units. For example, in category 6 ten children transferred out of school before completing Unit 1; and the number cumulated to 28 in Unit 2. The cumulative number reflecting mobility ultimately reduced the total number of children remaining in the Program to 430 by the end of Unit 6 and 427 by the End-of-Program Test.

The children who returned to regular instruction in the earlier units of LCS possessed greater entering language proficiency than those

Table 7

Entry and Pronunciation Test Results by Instructional Unit Completion Status

Status	Unit 1			Unit 2			Unit 3			Unit 4		
	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.
1. Completed	444	18.75 14.52	1.60 .86	455	20.37 14.80	1.73 .95	393	19.74 14.60	1.70 .87	395	20.81 14.86	1.77 .97
2. Skipped	99	19.17 16.57	1.96 1.08	48	29.08 13.30	1.38 .54	55	21.45 17.02	1.90 1.30	43	15.56 14.48	1.30 .52
3. Absent	13	28.92 11.32	2.36 1.02	18	21.50 15.34	1.73 1.16	25	14.04 14.90	1.65 1.03	13	15.46 16.31	1.73 1.10
4. Did not Complete	3	33.33 11.55	1.67 .58	7	15.71 18.13	1.33 .52	19	16.89 15.33	1.75 .45	27	15.56 14.92	1.59 .51
5. No Data	8	34.61 3.20	2.25 1.03	10	30.70 8.94	2.00 1.05	10	30.70 8.94	2.00 1.05	11	29.45 9.44	2.09 1.04
6. Transferred from School	10	27.90 9.19	1.80 1.03	28	20.93 11.23	1.43 .74	37	17.76 12.22	1.38 .76	41	17.51 12.04	1.39 .74
7. Returned To Regular Instruction	35	32.11 11.61	1.80 1.10	46	28.96 13.35	1.72 .98	73	25.36 15.46	1.75 1.00	82	22.88 16.22	1.64 .94
Total*	567			538			502			489		
Status	Unit 5			Unit 6			End-of-Program Test					
	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.	N	Entry $\bar{X}$ S.D.	Pronun. $\bar{X}$ S.D.
1. Completed	290	20.52 14.55	1.76 .94	198	21.00 14.01	1.77 .94	370	19.65 14.65	1.70 .89			
2. Skipped	74	17.68 15.76	1.42 .68	111	20.51 15.84	1.90 .79	6	20.00 10.49	2.00 1.41			
3. Absent	18	24.56 12.41	2.06 .94	16	17.69 14.25	1.44 1.07	38	12.66 15.32	1.58 .87			
4. Did not Complete	47	14.79 13.75	1.33 .48	93	16.54 14.19	1.51 .70	13	25.23 11.42	2.00 1.00			
5. No Data	11	29.45 9.44	2.09 1.04	12	29.92 9.14	2.09 .81	0	- -	- -			
6. Transferred from School	42	17.83 12.08	1.39 .74	46	18.54 12.38	1.47 .91	48	19.40 12.36	1.47 .78			
7. Returned To Regular Instruction	130	22.74 16.45	1.81 1.08	136	21.74 16.75	1.77 1.04	137	21.64 16.84	1.76 1.06			
Total*	440			430			427					

*The Total is cumulatively adjusted to reflect the number of pupils actually in the Program, e.g., a combined 45 pupils left the District and Program during Unit 1, leaving a total 567 pupils in the Program.

who remained. By tracking category 7 entries across units, it is apparent that children with high Entry Test scores returned to the regular instructional program early in the LCS Program. Those who did well on the Entry Test were usually grouped and as soon as practicable removed from LCS. This is supported by teacher comment. As the children progressed through the units, children with lower scores on the Entry Test begin to join the school's regular instructional program on the basis of increased English language proficiency. Children who returned to regular instruction during Unit 1 had a mean Entry Test score of 32.11 while those who returned during Unit 6 had a mean score of 21.74. Overall, the children who returned to the regular instructional program had a mean Entry Test score of 21.64 as contrasted with 19.65 for those entering and completing LCS. Corroborative data from teacher comments indicates that during initial instruction, LCS performance is highly related to the child's entering language facility. Progressively, however, LCS's effectiveness reduces the correlation and student performance becomes more independent of entering language facility; i.e., irrespective of entering English language proficiency, children perform well in LCS.

Table 8 describes how well children within specified entry score ranges performed throughout LCS. "Units 1-3" shows performance on the first half of the Program and "Units 4-6" shows performance on the second half (in terms of combined unit assessments raw scores).

Table 8
Unit Assessment Test Descriptive Data
by Entry Test Score Ranges

Entry Test Raw Score Ranges	Assessment Raw Scores*								
	Units 1-3			Units 4-6			End-of-Program		
	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.
1-10	97	24.86	4.61	51	27.24	2.87	114	52.49	7.51
11-20	50	26.62	3.65	26	25.15	4.49	47	51.04	7.45
21-30	60	27.55	3.44	38	27.74	2.91	67	53.64	5.61
31-40	99	28.54	2.26	58	28.67	2.77	112	55.13	5.06
Total	306	26.86	3.88	173	26.57	3.32	340	53.39	6.55

*N's will vary as function of pupil placement and advancement procedures.

As children progressed through the Program, those with low scores on the Entry Test approached the performance level of the children who scored high on the Entry Test. On Units 1-3 there is a 3.68 difference between the lowest scoring group and the highest scoring group; on Units 4-6 there is only a 1.43 difference.

In sum, LCS as used in the tryout accomplished the prespecified instructional objectives at a high level of proficiency. The Program proved manageable by teachers and remarkably robust under a wide range of school and classroom conditions.